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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,281

07/19/2006

Hiroataka Fukutsuka

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EXAMINER

ADDY, ANTHONY S

ART UNIT

PAPER NUMBER

2617

NOTIFICATION DATE

DELIVERY MODE

01/09/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patdocket@pearne.com  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/597,281	<b>Applicant(s)</b> FUKUTSUKA ET AL.	
	<b>Examiner</b> ANTHONY S. ADDY	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/19/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Information Disclosure Statement***

1. The references listed in the Information Disclosure Statement filed on July 19, 2006 have been considered by the examiner (see attached PTO-1449 form or PTO/SB/08A and 08B forms).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Shishino, U.S. Patent Number 6,108,563 (hereinafter Shishino)** and further in view of **Proctor, Jr. et al., U.S. Patent Number 7,072,316 (hereinafter Proctor)**.

Regarding claim 1, Shishino teaches a wireless communication system, comprising: a plurality of mobile wireless station apparatuses (5-1 to 5-p); a plurality of base station apparatuses (3-1 to 3-n); and a base station control apparatus (*e.g.*, *communication control apparatus 1*) connected with said plurality of base station apparatuses (3-1 to 3-n) and operative to output audio signals from said mobile wireless station apparatuses to all of said plurality of base station apparatuses (see col. 3, lines 24-33 and Fig. 1), said plurality of base

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station apparatuses operative to communicate with said mobile wireless station apparatuses on respective transmission frequencies and receiving frequencies different from one another (*e.g.*, *communication channels 4-1 to 4-n*) (see col. 3, lines 28-33 and Fig. 1), and in which said base station apparatus is operative to transmit to said mobile wireless station apparatus a data signal indicative of "transmission permitted" when said base station apparatus can receive a transmission signal from said mobile wireless station apparatus and a data signal indicative of "transmission inhibited" when said base station apparatus cannot receive a transmission signal from said mobile wireless station apparatus (see col. 15, line 64 through col. 16, line 31).

Shishino fails to explicitly teach said mobile wireless station apparatus is operative to monitor a receiving status of radio wave, and switch to a base station apparatus which is better in said receiving status than said base station apparatus currently communicating and transmitting said data signal indicative of "transmission permitted", when said receiving status becomes worse than a predetermined receiving status.

In an analogous field of endeavor, Proctor teaches a communication system populated by a plurality of base stations, wherein the base stations communicate with a plurality of mobile stations and each base station transmits one or more paging channels used to command a mobile station to set up a traffic channel (see col. 2, lines 40-45 and col. 3, lines 4-8). According to Proctor, the communication protocol of a sync channel may be modified to include a congestion indicator signal that identifies whether a base station is

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operating in a congested state and when the base station is not operating in a congested state a flag may be set to a first predetermined state indicating that a mobile station may attempt to register with the base station, and when the base station is operating in a congested state, the flag may be set to a second predetermined state indicating that the mobile station should not attempt to register with the base station (see col. 3, lines 10-21). Proctor further teaches a mobile station monitors received transmissions and searches for pilot channels of neighboring base stations, and the mobile station may rank the base stations based upon the quality of the detected pilot channels (see col. 3, lines 25-51). According to Proctor, the mobile station selects the base station that was ranked highest in pilot quality and monitors the sync channel to acquire the congestion indicator signal to determine whether the flag signal therein indicates that the base station is accepting additional registrations from mobile stations, and if the base station is accepting new registrations, the mobile station attempts to register with the selected base station (see col. 3, lines 51-59 and col. 4, lines 26-32).

It would therefore have been obvious to one of ordinary skill in the art to modify Shishino with the teachings of Proctor to include a system, wherein said mobile wireless station apparatus is operative to monitor a receiving status of radio wave, and switch to a base station apparatus which is better in said receiving status than said base station apparatus currently communicating and transmitting said data signal indicative of "transmission permitted", when said receiving status becomes worse than a predetermined receiving status, in order

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to register with a lightly congested base station to improve a communication quality of a mobile station as taught by Proctor (see col. 2, line 14-19 and col. 4, lines 19-23).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Shishino, U.S. Patent Number 6,108,563 (hereinafter Shishino)** and **Proctor, Jr. et al., U.S. Patent Number 7,072,316 (hereinafter Proctor)** as applied to claim 1 above, and further in view of **Suzuki, U.S. Patent Number 6,052,366 (hereinafter Suzuki)**.

Regarding claim 2, Shishino in view of Proctor teaches all the limitations of claim 1. Shishino in view of Proctor further teaches a wireless communication system, in which said base station apparatus includes received signal outputting means for demodulating a received radio wave into a received signal to be outputted therethrough, transmitting means for modulating a signal synthesized and outputted by said synthesizing means into a radio wave to be transmitted therethrough (see *Shishino*, col. 4, lines 13-16 and col. 7, lines 1-9 & 59-64), and controlling means for transmitting a data signal indicative of "transmission permitted" when capable of receiving a transmission signal from said mobile wireless station apparatus and a data signal indicative of "transmission inhibited" when not capable of receiving a transmission signal from said mobile wireless station apparatus (see *Shishino*, col. 15, line 64 through col. 16, line 31 and *Proctor*, col. 3, lines 9-21), said mobile wireless station apparatus includes received signal outputting means for demodulating a received radio wave into a

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received signal to be outputted therethrough, electric field intensity detecting means for detecting an electric field intensity of said received signal, converting means for converting said data signal into data (see *Proctor*, col. 3, lines 25-56), audio signal inputting means for inputting said audio signal, synthesizing means for synthesizing a data signal generated based on said data with audio signal inputted by said audio signal inputting means (see *Shishino*, col. 4, lines 13-16 and col. 7, lines 59-64), transmitting means for modulating a signal synthesized by said synthesizing means into a radio wave to be transmitted therethrough (see *Shishino*, col. 5, lines 6-10), and controlling means for monitoring an electric field intensity of said received signal while communicating with said base station apparatus, and detecting an electric field intensity of said received signal from each of base station apparatuses other than said base station apparatus currently communicating, receiving radio waves from said base station apparatuses in decreasing order of an electric field intensity of said received signal, and switch to a base station apparatus which is transmitting said data signal indicative of "transmission permitted", when said receiving status becomes worse than a predetermined receiving status (see *Proctor*, col. 3, lines 9-64, col. 4, lines 19-43 and Fig. 3).

Shishino in view of Proctor fails to explicitly teach separating means for separating said received signal into an audio signal and a data signal.

However, a separating means for separating said received signal into an audio signal and a data signal is very well known in the art as taught for example by Suzuki.

In an analogous field of endeavor, Suzuki teaches a radio telephone system comprising a plurality of mobile telephones connected to a plurality of base stations, wherein a received signal is separated into an audio signal and a data signal (see col. 12, lines 14-23, col. 13, lines 19-30 and Fig. 15).

It would therefore have been obvious to one of ordinary skill in the art to modify Shishino and Proctor with the teachings of Suzuki to include a separating means for separating said received signal into an audio signal and a data signal, in order to retrieve an audio data carrying an audio message to be outputted to a mobile device subscriber as taught by Suzuki and Shishino (see *Shishino*, col. 7, lines 59-64 and *Suzuki*, col. 13, lines 19-30888).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sato, U.S. Patent Number 6,141,555 discloses cellular communication system and mobile and base stations used in the same.

Liu et al., U.S. Patent Number 7,215,956 discloses method and apparatus for scanning frequency channels for handoff candidates while minimizing battery consumption.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY S. ADDY whose telephone



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number is (571)272-7795. The examiner can normally be reached on Mon-Thur 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on 571-272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anthony S Addy/  
Examiner, Art Unit 2617

/Alexander Eisen/

Supervisory Patent Examiner, Art Unit 2617